Table 1. Comparison of PD versus no PD patient groups.

	No PD (N=174)	PD (N=102)	p Value
BSA	1.75±0.23	1.85±0.24	<0.0001
Sex (male)	68/174	69/102	<0.0001
Sagittal Annulus	22.30±1.96	23.32±1.62	<0.0001
3D Perimeter	72.6±7.1	76.3±6.0	0.004
3D Area	410.9±81.2	451.2±68.4	0.007
Baseline EOA indexed(cm^2/m^2)	0.36±0.11	0.38±0.15	0.30
Post TAVR EOA indexed(cm^2/m^2)	1.10±0.22	1.12±0.019	0.517
Performance Index 3DE (Area)	0.47±0.07 (n=87)	0.44±0.06 (n=33)	0.046
Mean PVR*	1.13±0.39	1.55±0.75	<0.0001
Prosthesis-Patient Mismatch	15/159 (9.4%)	5/98 (5%)	0.025
Cover Index 2DE (%)	10.3±4.4	7.7±3.8	<0.0001
Cover Index 3DE Perimeter (%)	7.5±4.4	4.6±5.0	0.005
Cover Index 3DE Area (%)	16.7±7.9	11.7±9.2	0.007

*PVR is treated as a continuous variable using the following grading scheme: 1=none/trace, 2=mild, 3=moderate, 4=severe

TCT-710

Difference of Short Term Outcome in Low, Intermediate and High risk Patient in TAVI

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Background: Short term outcome of TAVI in intermediate and low risk patient is not well known. We performed a cross sectional study to investigate short term mortality and major cardiovascular event (MACE) in low and intermediate risk patients, and compared to those in high risk patients.
Methods: Consecutive 125 patients who received TAVI were included in the study. High, intermediate and low risk for surgical aortic valve replacement (S-AVR) was defined as STS score was 10 or higher, 4-9.99 and less than 4, respectively. MACE was defined as death, stroke, myocardial infarction, unplanned open chest or peripheral vascular repair/intervention, acute kidney injury and lethal bleeding according to the VARC definition. Odds ratios (ORs) of in hospital mortality and MACE in intermediate and low risk patients compared to high risk patients were calculated with multivariate logistic regression analysis adjusted for patient background.
Results: 35, 70 and 20 patients were included in high, intermediate and low risk group. Mortality was observed in 3 (8.6%), 2 (2.9%) and 0 (0%) patients and mortality rate in each risk group was same or lower than bottom level of STS score defined in each risk stratification (10%, 4% and 0%). MACE was observed in 14 (40.0%), 12 (17.1%) and 2 (10.0%) patients. ORs of mortality in intermediate and low risk group were 0.53 (95%CI: 0.02-12.3, p = 0.70) and <0.55 (95%CI: 0.00-0.00, p < 0.23). ORs of MACE were 0.27 (95% CI: 0.10-0.74, p = 0.011) and 0.27 (95% CI: 0.05-1.54, p = 0.14). No significant difference in mortality and MACE between intermediate and low risk group (p = 1.00 and p = 0.73, respectively).
Conclusions: Compared to surgical risk, mortality rate was lower especially in high and intermediate risk group in TAVI. Compared to high risk patients, intermediate and low risk patients showed lower risk for in hospital mortality and MACE although difference did not reach statistical significance due to lack of sample size. Intermediate and low risk patients showed similar short term outcome after TAVI. Result of the study indicated a possibility that TAVI is effective especially for intermediate risk patient for S-AVR.

TCT-711

Abstract Withdrawn

TCT-712

Clinical Outcomes of Patients With Low Flow, Low Gradient Severe Aortic Stenosis According To Treatment Modality

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Background: The aim of this study was to assess the role of transcatheter aortic valve implantation (TAVI) compared with medical treatment (MT) and surgical aortic valve replacement (SAVR) in patients presenting with low-flow, low-gradient (LFLG) severe aortic stenosis (AS).
Methods: Between 2006 and 2012, 142 patients with LFLG severe AS (indexed aortic valve area [AVAi] ≤0.6cm2.m-2, ejection fraction [EF] <50% and mean gradient [MG] <40mmHg) and a complete pre-TAVI right and left heart catheterization underwent treatment allocation to MT (n=28) SAVR (n=41) or TAVI (n=73).
Results: Baseline characteristics were similar among patients allocated to MT and TAVI, whereas patients allocated to SAVR were younger (MT 82.0±5.2 vs SAVR 75.7±5.6 vs TAVI 82.2±4.8 years, p<0.0001) and were at lower predicted surgical risk (Logistic EuroSCORE MT 39.1±14.1 vs SAVR 20.7±13.6 vs TAVI 35.7±15.2%). Pre-procedural invasive hemodynamic indices were similar among MT and TAVI patients, whereas patients allocated to SAVR had a higher MG (p=0.03) and EF (p=0.008) and lower pulmonary artery (PA) systolic (p<0.0001) pressures. Overall MG was 26.4±8.4 mmHg, mean AVAi was 0.33±0.12, mean systemic vascular resistance was 2071.9±701.0 dyne.s.cm-2, mean PA pressure was 36.7±10.8 mmHg and mean EF was 33.0±8.8 %. All-cause mortality at 30-days was similar among SAVR (4.9%) and TAVI (5.5%) patients, but was non-significantly higher among MT patients (17.9%, p=0.08). Unadjusted rates of all-cause mortality at 12 months were significantly lower for SAVR (17.1%) and TAVI (17.8%) as compared with MT (42.9%, p=0.02). Adjusted hazard ratios for death were 0.39 (95% confidence interval: 0.16 to 0.94) for SAVR compared with MT and 0.35 (95% confidence interval: 0.17 to 0.70) for TAVI compared with MT. Medical treatment (p=0.02) and pulmonary hypertension (p=0.03) were significantly associated with all-cause mortality at 12 months on multivariate analysis.
Conclusions: Among patients with low-flow, low-gradient severe AS, SAVR and TAVI improved survival compared with MT. Clinical outcomes of TAVI and SAVR appeared similar among appropriately selected patients with LFLG severe AS.

TCT-713

A Minimalist Approach to Trans-Catheter Aortic Valve Implantation, With Limited Use of Computerised Tomography, Transoesophageal Echocardiography and General Anaesthesia – In-Hospital, 30 Day and One Year Outcomes

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Background: There is a trend for use of advanced adjunctive technology to support trans-catheter aortic valve implantation. It is not clear whether this approach is superior to a minimalist approach.
Methods: We assessed in-hospital MACE, 30-day and 1 year clinical outcomes among patients undergoing TAVI employing a less intensive assessment and performance protocol, using registry data from two UK TAVI centres. Mortality tracking was reported as of December 2012.
Results: Within the study cohort (n=384) mean age was 81.4±7.0 years and 46.3% were male. Logistic EuroSCORE was 19.2±11.6. Mean peak aortic valve gradient and aortic valve area were 79.7±25.2mmHg and 0.62±0.20cm2 respectively. Aortic annular size was assessed by transthoracic echo (TTE; 73.4%), transoesophageal echo (TOE; 24.5%) and multislice computerised tomography (MSCT; 0.5%). Mean aortic annular diameter was 23.1±2.4mm. Pre-procedural iliofemoral assessment was by invasive contrast angiography (99.5%) or MSCT (0.5%). Procedures were performed under local anaesthetic alone (39.1%), local anaesthetic and anaesthetic sedation (46.0%), or general anaesthesia (14.9%). Device implantation was predominantly with the CoreValve self-expanding prosthesis (87.7%) and via the femoral approach (90.7%). Device implantation employed contrast aortography in all cases with supportive TTE (85%), TOE (3.4%), or no additional imaging (11.6%). Procedural success was 96.1%. Procedural complications included death (0.8%) and valve-in-valve implantation (3.1%). Overall in-hospital MACE was 6.0%. Aortic regurgitation ≥grade2 was seen in 12.5%. Mortality rates were in-hospital 3.5%, 30-day 5.5% and one-year 15.2%.
Conclusions: Excellent TAVI clinical outcomes can be achieved despite limited use of computerised tomography, transoesophageal echocardiography and general anaesthesia.